Power Up Pedagogy with Technology: iPads in Music

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Technology is having an enormous impact on music instruction today, and we must train our students accordingly. To be an educator in today's teaching profession, we must of course have taken numerous courses in methodology, pedagogy, and education case studies. But most educators make the mistake of teaching the way they themselves have been taught. This will not work with today's students, who are savvy with technology and therefore learn differently from the way we were taught.

This paper gives a snapshot of one application of the new technology to music teaching in the classroom: how iPads can be used to enhance the results for students in Theory, Aural Skills, and Composition. I have found that it is never popular, and definitely not on students' priority lists, to go to the listening lab or go through their theory workbooks. But there are plenty of software programs for students on music theory, ear-training skills, and even composition. Using an iPad draws the students of today into learning and encourages them to do their homework in an unprecedented way. I hope teachers can use the information I provide to enhance their teaching.

Power Up Pedagogy with Technology: iPads in Music, will discuss my experience of working with Apple iPads to improve the outcome of a musicianship class: how this technology powered up the pedagogy in aural skills and keyboard skills.

This study was to participate in a grant study at my university to investigate the pedagogical implications and opportunities of the iPad. My focus in Music came among a diverse set of disciplines including Oceanography, Physical Education, Tourism, Library Science, and Communications.

Prior to working with iPads in class, I checked on how many students were using the lab we provide for keyboard and ear-training. After a semester with six 60-minute sessions, I was astonished to find out that only one student from a class of sixteen was using the lab for ear-training. That news motivated me to find other ways for the students to develop their aural skills.

For my initial exploration, I used iPads in two musicianship courses: first year (15 music majors) and second year (12 music majors) during one 75-minute ear-training session. In each class, for the first five minutes, I gave a ten-interval dictation to all the students. Then I spent five minutes helping them set up iPads, one per student. Each iPad was loaded with seven free "apps" (software applications): five for ear-training (Ear Training Lite, Karajan Beginner, Music Reader, Relative Pitch Lite, Step & ½), one for notating music (Virtuoso), and one with a metronome (iTick), The bulk of each class was spent on the students working with all the apps, observing the differences between two notes sounding together or consecutively: unison, minor 2nd, major 2nd, major 3rd, minor 3rd, perfect 4th, tritone, perfect 5th, minor 6th, major 6th, minor 7th, major 7th, and octave. The students were also given a sheet on which to write down comments about the apps. In the last five minutes of each class, I gave the ten-interval dictation to all the students again. None of the students owned an iPad, still a bit of a novelty item, but the sessions went smoothly, and the students did not need help getting started. Generally speaking, the students found the sessions "cool" and a fun learning experience.

Some of the apps (e.g., Step & ½) felt to them like a game, whereas others were hard to figure out and caused the students some stress. Many students found the free version apps too simple and said that next time they would like the full versions (for which one has to pay). The first-year group was definitely more engaged than the second-year group, remained focused on their work for the entire session. Overall, however, both sessions had positive outcomes. Students were enthusiastic about the iPads in the classroom and every session had perfect attendance. And although I simply requested the students to fill out a survey, rather than requiring them to do so, they all completed it. All the students said they would rather use iPads than go to the lab.

Appreciation

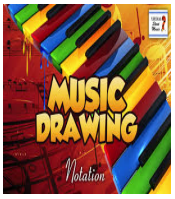
- Virtuoso: Duet
- iTick: Metronome
- Reverse: Chords
- Music Score: Recording
- Magic Piano: Accuracy

Theory and Ear Training

- Karajan Pro
- Step & ½
- Relative Pitch
- Reverse
- Ear Training Lite

Scores

- Tonara
- PianoScores
- Music Reader



Composition

- Music Drawing
- I Write Music

Here is a summary of the kinds of comments collected from the students on the survey after the first session (both class and private lessons):

- The session was described as very “cool” and a fun learning experience. Students found some apps more like a game. But for some students, an app such as Step & ½ was hard to figure out, creating some stress.

- For college students, the first-year group was definitely more engaged than the second-year group. The pre-college students treated the iPads like a game. All the students were very focused and stayed with their work for the entire session.

- Some students found the apps too simple and asked for a more advanced version for the following session.

- Overall, all the sessions, regardless of whether it was a class or a private lesson, the age of the students, or their level, had a positive outcome. Students were enthusiastic about the iPads in the classroom or lessons and confirmed it by perfect attendance. All the sessions ran smoothly without any interruptions.

- When I asked students to comment, they all participated in the activities by completing a survey.

- All the students expressed how they loved having the iPads to practice on, instead of going to the lab or going through their theory workbook. iPads were still something of a novelty.

For the most of the semester, students received the full (purchased) version of their top two choices of apps from the first session, EarTraining and Karajan Pro. Each sessions were productive combination of practices and tests. The students were asked to keep the scores, which help them to focus for the entire 50-minute sessions. In the second session they had specific assignments for intervals, chords, and scales. The third and fourth sessions were more individualized. The students were asked to focus on work on their weaknesses in both harmonies and intervals. Most of the students chose to use Karajan Pro. I enjoyed working with iPads but wished there were ways to assess the students' time spent on specific disciplines along with reports of their practice and test scores. Most students enjoyed the sessions, but the second-year students thought the apps they were somewhat limited and should be more challenging—a good idea for music and arts technology majors!

In addition to the first- and second-year music major courses, the same apps were used in a session with a group of first graders and a professional piano teachers' organization (Indiana Piano Teachers Association). The professional group had to spend much more time on figuring out how to use the iPads than the college group or the children's group. The young students (grades 1–4 at camps) were much interested in composing and hearing their music than improving their skills. Overall, both the students and I enjoyed working with the apps and found most of them user- friendly and helpful for improving ear-training skills. Since new apps are being developed constantly, it is a challenge to keep up with them and assess their quality

As the students became more comfortable working with iPads, a few students started to notice mistakes in the apps. This led to some interest and a discussion among the students about developing their own apps. Some errors were basic, such as a note name on the keyboard.

Students took this opportunity to contact the developers about their findings. For the tech-savvy students, these iPad sessions were heaven, although it took others a little longer to be on the same page. Although we all learn differently, there are now so many apps that students can readily find one they can work with. The iPad is a tactile instrument and works well for ear-training exercises compared with some of the software that has been around for years. As a result, by adopting a new tool such as the iPad in my class, I was able to:

1. Promote student engagement. My focus was on how the process helped students to develop and enhance their skills. The multiple iPad sessions and asking for feedback created a positive way of engaging the students in the latest technologies. This was not the case, however, in a workshop for professional teachers, who needed to overcome their fear of a new tool before being able to explore and become familiar with the device.
2. Adding one of the latest tools to my class was also a great opportunity for my students who are majoring in Music and Arts Technology in the School of Engineering and Technology to survey the product. One of the biggest complaints about the iPad was the touch keyboard. Its tactile nature, however, works better for the exercises than some of the software that has been around for years, which tends to have an inefficient way of creating music notation.

The above conclusion came because of the questionnaire given to all students. (see iPad FLC-Survey Questions)

For the future, the possible questions can include;

- How do students who are not tech-savvy respond to iPads in the classroom?
- What are the greatest benefits and drawbacks of this technology in the classroom? What are some of the best iPad apps for use in the classroom?
- What can be done with the iPad in the classroom that cannot be done in other types of course instruction?
- How has the iPad changed the way you approach teaching and learning?

We have the opportunity as educators to adapt to the ever-changing world in training and preparing students for career paths in Music Technology in the following career disciplines.

- Multimedia production
- Computer-based training and education
- Music publishing
- Music hardware development
- Music software design
- Entertainment management
- Internet publishing (audio and video, e-books, e-editions)
- Sound design for movies and commercials (our students do sounds and voice-overs for class projects)
- Music retailing and media distribution
- CD audio production
- Song-writing
- Public performance
- Educator

To educate our students in this digital and connected age, it is essential to explore technology and its use in music instruction and understand technologically driven pedagogy.

"Technology is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal, handle an applied input/output relation, or perform a specific function." *Wikipedia*

One most important fact is technology does not replace classroom teachers, its only a tool... All educators just need to be reminded that the best teaching methods blend the new technology with traditional methods.